

Assessment of managed aquifer recharge to improve the security of urban water supply in western NSW, Australia

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Abstract The city of Broken Hill in western New South Wales, Australia, obtains most of its water supply from the Darling River at Menindee. An allocation of water for the city is stored in Menindee lakes, and up to 90% of the allocated water is lost due to evaporation. A possible alternative to wasteful surface storage is to use managed aquifer recharge techniques to store water in the alluvial aquifers associated with the Darling River at Menindee. A project to investigate the feasibility of this concept has been underway since 2006. This project has included a drilling programme, surface and down-hole geophysics, pump testing, geochemical modelling and groundwater flow modelling.

Key words Australia; managed aquifer recharge; Menindee, Darling River; groundwater modelling